2002 Consumer Confidence Report

A public service provided by the City of San Bruno, the Peninsula City of choice in which to live, learn, work, shop and play.





The City of San Bruno is proud to provide our customers with the annual Consumer Confidence Report (CCR). This year's report is in compliance with new regulations of the 1998 Safe Drinking Water Act (SDWA) reauthorization that charges the Environmental Protection Agency (EPA) with updating and strengthening the tap water regulatory program. This report presents water quality and supply information for 2002. During 2002 the City and San Francisco Public Utilities Commission (SFPUC) monitored the water quality of both source and treated water supplies. The City of San Bruno wants you, the customer, to know that your water system has met all water quality standards established by the EPA and the California Department of Health Services (DHS).

TABLE of CONTENTS

| Water Sources |
|-------------------------|
| Safety Testing3 |
| Causes of Pollution5 |
| Chloramine Conversion7 |
| Water Quality Report 10 |
| SFPUC Water Report11 |

Where Our Water Comes From

Throughout this report customers will be able to find useful information specifically related to the City of San Bruno water system, as well as information related to water in general. The primary mission of this report is to summarize the past year's water quality data (found in the tables at the end of this brochure). You will also find valuable information about our current operations as well as future changes or improvements to the water system. In particular, this year's report contains an expanded section dealing with the major

change to how we disinfect your drinking water (chloramine conversion), which is scheduled for Fall 2003. The City of San Bruno continues its commitment to provide you with safe, high quality drinking water.

SOURCES OF OUR WATER

The supply of water for the City of San Bruno is derived from two (2) primary sources, surface water and deep wells, which are blended throughout the distribution system. Water purchased from the San Francisco Public Utilities Commission (SFPUC) Hetch Hetchy system consists of surface flows which originate in the snow capped peaks of Yosemite National Park and the Stanislaus National Forest.

Because this source is located in mountain wilderness with limited human access, the quality and purity of this water is consistently high. This water is stored in a system of reservoirs in the Sierras, and is transported 150 miles across the San Joaquin Valley and through the Coast Range mountains via a series of pipelines and tunnels to the Bay Area. San Bruno-produced well water is obtained from deep wells located within the City that currently produce approximately one-half of our needs.

CONJUNCTIVE USE STUDY

The City of San Bruno has joined with other public water agencies that pump water from the Westside Basin Aquifer that lies under the northern San Francisco Peninsula to perform a study of the longterm effects of well pumping on underground water levels, and, in the northern areas, the impacts to Lake Merced water levels. Conjunctive use is a term applied to the responsibility of each of these agencies to jointly use this common resource wisely without causing per-

manent negative impacts.

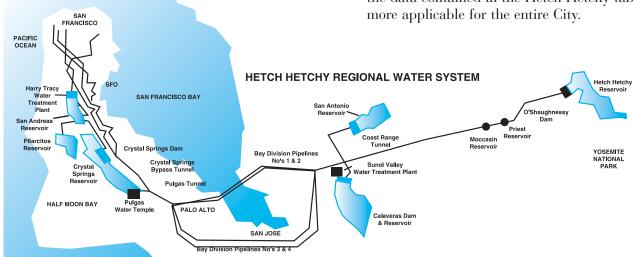
As participants in the 2- to 3-year study, San Bruno, San Francisco, Daly San Francisco City, and California Water Service have agreed to cease pumping groundwater WESTSIDE BASIN for up to three years during periods when ample surface water supplies exist in the Hetch Hetchy system. This will allow geologists to begin to under-Daly City stand how the aquifer responds to Brisbar Colma reductions in pumping and whether it WESTSIDE South can ultimately be used to store drinking San Francisco water during wet years. The City's wells were shut down on January 28, San Bruno 2003, and at the time of this printing remain off. This means that our cus-

> tomers are currently receiving only Hetch Hetchy water, not well water.

The impacts to water quality will be minimal with the possible exception of the hardness of the water (well water is slightly "harder" than surface water). At the end of this report, you will find two separate tables of water quality data for 2002 - one for well water, the other for Hetch Hetchy water. Beginning in January 2003, and for the period of the Conjunctive Use Study, the data contained in the Hetch Hetchy table will be



Westside Groundwater Basin



How Do We Know Our Water Is Safe to Drink?

WATER QUALITY

Water quality is extremely important to the staff of the City of San Bruno Public Works Department. Water Division employees are State Health Department certified Grade 1 and 2 Water Treatment Operators and the Water Services Manager has a Grade 3. All employees have Grade 3 and 4 Distribution certifications. The Water Division maintains a laboratory and conducts or supervises more than 600 analyses of water samples each year. The staff samples daily from supply sources, treatment facilities and distribution systems throughout our service area. Using state-of-the-art laboratory equipment capable of measuring minute quantities of contaminants in the parts per million range, samples are analyzed on a routine basis to insure that compliance standards are met and maintained. Additional samples are delivered to a contracted State-certified independent laboratory for further analysis. Public Works staff is in the process of installing permanent water-sampling stations throughout the City, which will provide a more consistent, reliable and accessible sampling program. You can be assured that your drinking water consistently meets or exceeds established quality standards.

Source Protection is the primary barrier, the first line of defense against contamination of your drinking water at its source. SFPUC maintains a comprehensive watershed control and management program to protect source water. The Hetch Hetchy Reservoir water supply meets all Federal and State criteria for watershed protection, disinfection treatment, bacteriological quality and operation standards. SFPUC controls activities on the watershed lands around their reservoirs, limiting activities to those compatible with maximum protection of the water quality. As a result, the U.S. Environmental Protection Agency granted the Hetch Hetchy water source a filtration exemption so that water from this source does not require filtration treatment to ensure its safety. SFPUC monitors Hetch Hetchy weather conditions, water turbidity levels, coliform bacteria levels, pathogens and parasite concentrations. SFPUC also complies with disinfection, sampling and reporting requirements, as well as conducting regular inspections of the protected Hetch Hetchy watershed and reservoirs.

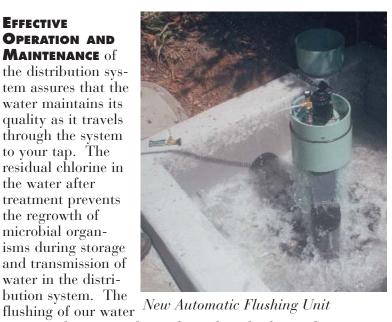
San Bruno's groundwater is drawn from a deep aguifer more than 200 feet below the surface. It is protected from contamination by impervious layers of clay deep in the ground. Contaminants borne by surface water and shallow groundwater that may eventually reach the aquifer are filtered by the soil layers over several centuries of time before it reaches

the well locations. The wells themselves are constructed to meet strict standards imposed by San Mateo County Environmental Health Division and the DHS to ensure that no surface water or shallow groundwater can enter the aguifer at those points. In cooperation with the San Mateo Environmental Health Division, San Bruno participates in a wellhead protection program established to ensure the long-term protection of the quality of San Bruno's ground-water resource.

WATER TREATMENT is the next protective barrier. Our well water is injected with sodium hypochlorite (liquid chlorine) solution at the well head to ensure proper disinfection. Also, our well water is sampled to ensure the health and safety of our consumers. In addition, our Forest Lane Well is equipped with a filtering plant to remove iron and manganese and adjust pH levels prior to distribution to our customers. This is to ensure that water from this particular well meets or exceeds all Secondary Drinking Water Standards as set by the DHS.

EFFECTIVE OPERATION AND MAINTENANCE of

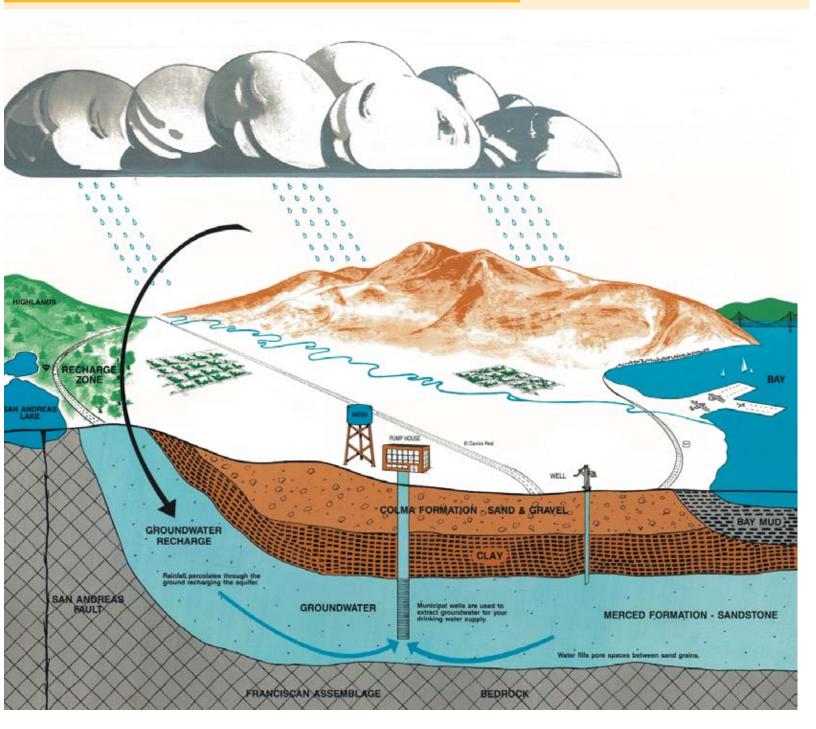
the distribution system assures that the water maintains its quality as it travels through the system to your tap. The residual chlorine in the water after treatment prevents the regrowth of microbial organisms during storage and transmission of water in the distribution system. The



mains and rotation of stored supplies also keeps the water fresh and limits the possibility for growth of such organisms. San Bruno conducts mandatory weekly water quality testing of the distribution system to ensure that the City's drinking water continues to be safe and healthy.

San Bruno also maintains an active cross connection control program to help prevent the intrusion of potentially harmful materials into the drinking water system. Cross connection control is done by isolating hazards (boilers, cooling towers, fire sprinklers, etc.) from the drinking water supply by installing approved backflow prevention devices.

How the Groundwater System Works



Contaminants that may be present in source water include:

MICROBIAL CONTAMINANTS such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural live stock operations and wildlife.

INORGANIC CONTAMINANTS such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

ORGANIC CHEMICAL CONTAMINANTS including synthetic and volatile organics, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

RADIOACTIVE CONTAMINANTS which can be naturally-occurring or be the result of oil and gas production and mining activities.

PESTICIDES AND HERBICIDES which may come from a variety of sources such as agricultural, urban stormwater runoff and residential uses.

How Does Drinking Water Become Polluted?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Although the presence of small amounts of these substances does not necessarily indicate that the water poses a health risk, extensive monitoring and testing of the drinking water is done to assure the safety of our customers.

In order to insure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and the California Department of Health Services (DHS) prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. DHS regulations also establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791) or on U.S. EPA's web site www.epa.gov/safewater/hfacts.html.

UNREGULATED CONTAMINANT MONITORING helps the EPA and DHS to determine where certain contaminants occur and whether the contaminants need to be regulated. During 2001, the SFPUC and the City of San Bruno monitored as many as twelve unregulated contaminants including MTBE, perchlorate, herbicides, and pesticides. These contaminants were not detected in any of the SFPUC or City of San Bruno supplies.

CHLORAMINE CONVERSION WILL PROVIDE AN INCREASED LEVEL OF PROTECTION FOR OUR WATER

In coordination with the SFPUC, San Bruno is continuing its progress in implementing a system-wide conversion from liquid chlorine to chloramine as a drinking water disinfectant.

The target date to complete the conversion to chloramine for both surface and well water is Fall 2003. A detailed explanation of the nature of the conversion, its potential impacts and other helpful information can be found beginning on page 7 of this report.

SPECIAL WAIVER REQUESTED

As part of the new regulation governing disinfection by products, the U.S. Environmental Protection Agency (EPA) has developed a new drinking water standard for a group of five haloacetic acids (HAA5) and lowered the current standard for a group of four trihalomethanes (TTHM). Water systems were required to meet these new standards starting in January 2002. Currently, while operating under optimum conditions, the San Francisco Regional Water System (SFRWS), the system that we purchase half of our water from, cannot meet the new standard on a consistent basis. To address this, San Francisco Public Utilities Commission (SFPUC), which operates the SFRWS, has embarked on a project to build new chloramination facilities. Unfortunately, a project of this size takes several years to complete and the facilities will not be operational until Fall 2003. Under the new regulation, EPA allows for a two-vear extension to comply with the new standard if capital improvements are necessary to meet the new standard. Since San Bruno receives approximately half of its water from SFPUC, we also applied for and received a twoyear extension. Under the extension, we will still have to meet all of the monitoring requirements and notify the public if the state standard for TTHM is exceeded. In addition, SFPUC must meet the deadlines in an EPA-developed construction schedule.

DEFINITIONS:

The following definitions are for each contaminant analyzed:

PUBLIC HEALTH GOAL (PHG) The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are unenforceable targets set by the California Environmental Protection Agency.

MAXIMUM CONTAMINANT LEVEL GOAL (MCLG) The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's are set by the U.S. Environmental Protection Agency (U.S. EPA).

MAXIMUM CONTAMINANT LEVEL (MCL) The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs and MCLGs as is economically or technically feasible. Secondary MCLs are set to protect odor, taste, and appearance of drinking water.

PRIMARY DRINKING WATER STANDARD MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

VARIANCES AND EXEMPTIONS State or EPA permission to not meet an MCL or a treatment technique under certain conditions. Neither San Bruno nor the SFPUC has any variance or exemption for MCLs.

TREATMENT TECHNIQUE A required process intended to reduce the level of a contaminant in drinking water.

REGULATORY ACTION LEVEL (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

WAIVER State permission to decrease the monitoring frequency for a particular contaminant.

WHAT YOU SHOULD KNOW ABOUT CRYPTOSPORIDIUM AND GIARDIA

Cryptosporidium, a parasitic microbe found in most surface water supplies, can pose a potential health threat. If swallowed, it may produce cryptosporidiosis, with symptoms of diarrhea, stomach cramps, upset stomach, and slight fever. Some people are more vulnerable to Cryptosporidium than others and should seek advice about types of drinking water from their health care providers.

The SFPUC tests for Cryptosporidium in both source and treated water supplies at least quarterly. The SFPUC occasionally (about 19 percent of the time) detects low levels of Cryptosporidium in the Hetch Hetchy, East Bay, and San Francisco Peninsula source (untreated) waters at an overall average level of 37 Cryptosporidium/100 liters of water.

Giardia, a parasitic microbe found in most surface water supplies, but not in well water, can also pose a potential health threat. If swallowed, it can produce the same symptoms as Cryptosporidium. The SFPUC tests for Giardia in both source and treated water at least quarterly. The SFPUC occasionally (about 23 percent of the time) detects low levels of Giardia in the Hetch Hetchy, East Bay, and San Francisco Peninsula source (untreated) waters at an overall average level of 12 Giardia/100 liters of water.

Drinking water, including bottled water, may reasonably be expected to contain at least minute amounts of some contaminants including Cryptosporidium and Giardia. The presence of small amounts of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

LEAD AND COPPER

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. It is also recommended that homeowners who are concerned about elevated lead levels run their tap 30 seconds to 2 minutes before use. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

San Bruno has tested for lead and copper in the city water supply since 1992 as part of the Lead and Copper Rule monitoring program. Over 30 volunteers took water samples at the tap in their homes, which were then analyzed for lead and copper content as well as for the corrosive nature of the water. It should be noted that the water San Bruno delivers to its customers does <u>not</u> contain lead, but it may acquire lead from older soldered pipe joints in household plumbing.

Chloramine Conversion

The City of San Bruno obtains much of its drinking water from the San Francisco Public Utilities Commission (SFPUC). February 2, 2004, the SFPUC will switch from chlorine to chloramine disinfection for drinking water. To accommodate this change in the disinfection of water we purchase from SFPUC, the City will also convert its disinfection of local well water to chloramine. With the conversion to chloramine, our customers will continue to receive the highest quality water which meets or exceeds more stringent present and anticipated regulatory standards.

WHAT IS CHLORAMINE?

Chloramine is a disinfectant used in drinking water to remove bacteria and viruses. It consists of chlorine and ammonia and is considered a better disinfectant than "free" chlorine. Many Bay Area communities are successfully using chloramine disinfection.

Chloramine cannot be removed from water by boiling, or by letting an open container of water stand to dissipate chlorine gas. It can only be neutralized, or removed with specific treatment methods.

WHY ARE WE CONVERTING FROM CHLORINE TO CHLORAMINE?

For several reasons. Chloramine is a better choice as a final disinfectant than chlorine alone because chloramine produces lower levels of disinfectant by-products like trihalomethanes, suspected carcinogens that form when chlorine mixes with natural organic substances in water. The conversion will enable our agency to comply with more stringent regulatory standards (present and anticipated). Chloramine is more stable than chlorine and lasts longer in the distribution system. This provides increased protection from bacterial and viral contamination.

WHEN WILL THE CONVERSION OCCUR?

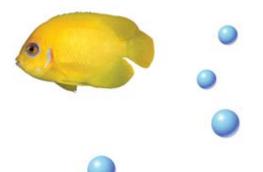
February 2, 2004. The San Francisco Public Utilities Commission (SFPUC) and agencies that receive water from the SFPUC will switch their drinking water disinfection systems this Fall. A more specific date has not yet been announced; customers will be notified via a utility bill insert when the date approaches.















WHICH CUSTOMERS WILL BE AFFECTED BY THE CONVERSION?

San Francisco residential and commercial customers and water agencies and utilities in San Mateo, Santa Clara, and Alameda counties that receive water from the SFPUC will be affected by the conversion. This includes all San Bruno water customers.

HOW MANY UTILITIES CURRENTLY USE CHLORAMINATED WATER?

Most Bay Area utilities and many communities nationwide have already switched to chloramine for drinking water disinfection. Local water providers include: Alameda County Water District, East Bay Municipal Utility District, Marin Municipal Water District, and Santa Clara Valley Water District. Some water providers throughout the United States have been using it for over 80 years.

WILL THE WATER TASTE DIFFERENT AFTER THE CONVERSION TO CHLORAMINE?

Possibly. Most consumers should not notice the change. In fact, many consumers from other utilities report chloramine improves the taste and odor of drinking water.

IS CHLORAMINATED WATER SAFE?

Chloraminated water is safe for people and animals to drink, cook with, bathe in, water the garden, and for all other general uses. However, as with chlorine, precautions must be taken to remove or neutralize chloramine during the kidney dialysis process, in the preparation of water for fish tanks and ponds, and for businesses requiring highly processed water. Specialized information for these groups of water users is available on our website: http://sanbrunowater.ca.gov, as well as in printed materials that have been mailed or distributed through points of sale.

IS IT SAFE TO WASH OPEN WOUNDS WITH CHLORAMINATED WATER?

Yes. Chloraminated water is completely safe to use on cuts and wounds.

HOW WILL CHLORAMINE AFFECT HOUSEHOLD PLUMBING, PIPES AND WATER HEATERS?

After the conversion, rubber parts on some household plumbing and water heaters may degrade faster than previously experienced. When replacing rubber plumbing parts, ask for chloramine-resistant parts, which are readily available.

WHO NEEDS TO TAKE SPECIAL CARE TO PREPARE FOR CHLORAMINES?

There are three groups of water users who need to be especially aware of this change to our disinfection process: fish owners, kidney dialysis patients, and businesses using highly processed water.

While chloraminated water is safe for animals to drink, those who own or sell fish, amphibian, or reptiles need to know that chloraminated water passes through gills, directly entering the bloodstream. Chloramine must be removed as it binds to iron in red blood cell hemoglobin, causing reduced cell capacity to carry oxygen. Local pet stores have products which can remove chloramine, but it cannot be removed by boiling water or letting it stand.

Like chlorine, chloramine can harm kidney dialysis patients if it is not removed from water before entering the bloodstream. The California Department of Health Services will inspect dialysis equipment and facilities to ensure that equipment is successfully upgraded prior to our conversion.

Finally, certain businesses using highly processed water may need to adjust or upgrade their current filtration and treatment systems. Examples of such businesses include restaurants or seafood suppliers with fish tanks, beverage manufacturers, labs and high tech operations.

WHAT WILL BE THE NOTICEABLE IMPACTS OF THE CONVERSION WORK?

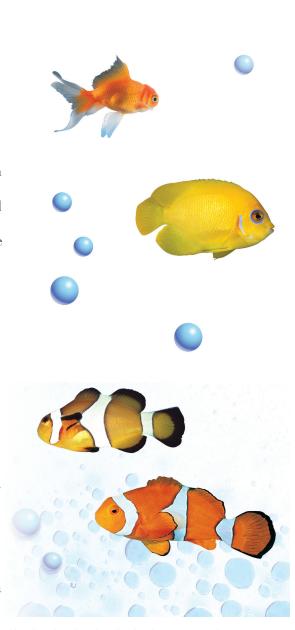
Water crews will be engaged in increased flushing of water lines to prepare for chloramine. You may notice crews flushing the system from fire hydrants in certain neighborhoods. There will be some minor construction work at wells and field testing activities, but these should not be noticeable to most of the public. The Water Division will also be setting up (and checking) monitoring stations around town. Finally, residents who live near San Francisco's Harry Tracy Water Treatment Plant may notice some construction traffic due to work at that site.

HOW CAN I GET MORE INFORMATION ON CHLORAMINE?

The City has set up a special telephone line (650) 616-7068, and a special website (http://sanbrunowater.ca.gov) to answer your questions. Information on the website is also available in Spanish, Tagalog and Chinese.

El 2 de febrero del 2004, La Comisión de Servicios Públicos de San Francisco (SFPUC) sustituirá el cloro por la cloramina en la desinfección del agua potable. La cloramina es una combinación de cloro y amoniaco que se considera un mejor desinfectante. Muchas comunidades del Area de la Bahía ya utilizan exitosamente la cloramina en la desinfección del agua.

Pebrero 2, 2004, sisimulang gamitin ng San Francisco Public Utilities Commission (SFPUC) ang chloramine-sa halip na chlorine-sa paglinis ng tubig na iniinom natin. Ang chloramine ay pinaghalong chlorine at amoniya. Ito'y tinuturing na mas mainam na panlinis at pangdisinpekta ng tubig. Maraming komunidad sa Bay Area ang matiwasay na



三藩市公用事業委員會將於2003年秋季 起,改用氯胺作為食水的消毒劑。氯胺是氯與氨水的混合,被認為是較佳的消 毒劑。很多灣區的社區均成功的使用氯胺做消毒劑。

2002 Annual Water Quality Report

| DETECTED CONTAMINANTS | Unit | PHG (4)(5) | MCL (3) | San Bruno Well Water | | MAJOR SOURCES IN DRINKING WATER | |
|---|-------|------------|--------------|-------------------------|-------------|--|--|
| BETEGTED CONTINUENT INTO |) | (MCLG) | WIOL (0) | Range | Average | WWW.GOTTGGGTTGEGTTW.DTIIIWAATGAWATETT | |
| PRIMARY DRINKING WATER STANDARDS | | | | | | | |
| DISINFECTION BY-PRODUCTS (DBPs) (2) | | | | | | | |
| Total Trihalomethanes (TTHMs) - City of San Bruno & Hetch Hetchy Distribution System | ppb | NS | 80 (6) | <.5-104.7 | 45 (7) | By-product of drinking water chlorination | |
| Total Halocetic Acid (HAA5) - City of San Bruno & Hetch Hetchy Distribution System | ppb | NS | 60 (6) | <2-67.9 | 8 (7) | By-product of drinking water chlorination | |
| RADIONUCLIDES | | | | | | | |
| Gross Alpha particle | pCi/L | NS | 15 | 0.1-1.0 | 0.38 | Erosion of natural deposits | |
| Gross Beta particle | pCi/L | NS | 50 | 0-3 | 1.5 | Erosion of natural deposits; decay of natural and man-made deposits | |
| INORGANIC CHEMICALS | | | | | | | |
| Nitrate (as NO3) (1) | ppm | 45 | 45 | 0.26-5.5 | 3.08 | Run-off and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits | |
| Chlorine | ppm | MRDL=4 (8) | MRDLG =4 (8) | 0.01-1.48 | 0.37 | Drinking water disinfectant added for treatment | |
| LEAD AND COPPER RULE STUDY | UNIT | PHG | AL | | 90th Percen | ntile Level | |
| Copper - City of San Bruno Tap Water | ppm | 170 | 1300 | 5-200 | 110 | Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives | |
| Lead - City of San Bruno Tap Water | ppb | 2 | 15 | <2.0-4.3 | <2.0 | Corrosion of household plumbing systems, erosion of natural deposits | |
| Action Level(AL). The last round of samples were collected in July 2002. 35 sites were tested for lead and copper and all samples were below the action levels. | | | | | | | |

| SECONDARY MAXIMUM CONTAMINANT LEVELS - Consumer Acceptance Limits | | | | | | | |
|---|-------|----|------|---------|-------|---|--|
| Chloride | ppm | NS | 500 | 29-107 | 75 | Run-off/leaching from natural deposits; seawater influence | |
| Color | unit | NS | 15 | <5-29 | 6 | Naturally-occuring organic materials | |
| Iron | ppm | NS | 0.3 | <0.05 | <0.05 | Leaching from natural deposits; industrial wastes | |
| Manganese | ppm | NS | 0.05 | <0.01 | 0.05 | Leaching from natural deposits | |
| Odor Threshold | TON | NS | 3 | <1-1 | <1 | Naturally-occuring organic materials | |
| Specific Conductance | μS/cm | NS | 900 | 470-830 | 665 | Substances that form ions when in water; seawater influence | |
| Sulfate | ppm | NS | 500 | 20-75 | 49 | Runoff/leaching from natural deposits; industrial wastes | |
| Total Dissolved Solids (TDS) | ppm | NS | 1000 | 250-464 | 370 | Runoff/leaching from natural deposits | |

| ADDITIONAL CONSTITUENTS ANALYZED |) | | | | | |
|----------------------------------|------|----|----|---------|------|---|
| Alkalinity (as CaCO3) | ppm | NS | NS | 128-186 | 156 | |
| Calcium | ppm | NS | NS | 29-56 | 39 | Note: |
| Hardness (as CaCO3) | ppm | NS | NS | 152-284 | 222 | These additional constituents do not affect health. |
| Magnesium | ppm | NS | NS | 18-35 | 23 | They are tested because they can affect color, |
| рН | unit | NS | NS | 7.2-8.9 | 7.97 | taste and/or odor of water. |
| Potassium | ppm | NS | NS | 3.4-4.3 | 3.9 | |
| Silica | ppm | NS | NS | 25-30 | 27.5 | |
| Sodium | ppm | NS | NS | 36-53 | 46 | |

Miscellaneous Water Quality Notes

- ▶ Methyl-tert-Butyl Ether (MTBE) was tested at all City Wells on a quarterly basis in 2002 and none was detected.
- ► Trichloroethylene (TCE) was tested at all City Wells on a quarterly basis in 2002 and none was detected.
- ▶ Total coliform samples were collected on a weekly basis throughout the distribution system. A total of 676 samples in 2002 and all tested negative

Footnotes:

- (1) Nitrate: Nitrate in drinking water levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; systems include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant woman and those with certain specific enzyme deficiencies. If you are caring for an infant, or are pregnant, you should ask advice from your health care provided.
- (2) As a result of the 2 year extension on DBP rule, a new testing program has been developed beginning January 2002.
- $(3) \ Maximum \ Contaminant \ Level \ (MCL) \ and \ Secondary \ Maximum \ Contaminant \ Level \ (SMCL) \ set \ by \ U.S. \ EPA/DHS$
- (4) Public Health Goal (PHG) adopted by the State Office of Environmental Health Hazard Assessment (OEHHA) of the California EPA
- (5) Maximum Contaminant Level Goal (MCLG) set by U.S. EPA
- (6) 4-quarter running annual average in City of San Bruno treated water.
- (7) Data obtained from 4-quarter running annual average of 12 locations in City of San Bruno Water System.
- (8) MRDL = Maximum Residual Disinfectant Level, MRDLG = Maximum Residual Disinfectant Level Goal.

Additional SFPUC Water Quality Data 2002(1)(2)

Fluoridated Water

| DETECTED CONTAMINANTS | Unit | MCL ⁽³⁾ | PHG ⁽⁴⁾ | Range | Average | Typical Sources in Drinking Water |
|---|------|--------------------|------------------------|-------------|---------|---|
| | | | (MCLG ⁽⁵⁾) | | | |
| Turbidity (SFPUC Treated Water) | | | | | | |
| Turbidity ⁽⁶⁾ - Tesla Portal (Hetch Hetchy Water) | NTU | 5 ⁽⁷⁾ | N | 0.20 -0.66 | 0.33 | Soil run-off |
| Turbidity ⁽⁶⁾ - Harry Tracy Water Treatment Plant | NTU | 0.5 ⁽⁸⁾ | N | 0.06 - 0.29 | 0.08 | Soil run-off |
| Turbidity ⁽⁶⁾ - Sunol Valley Water Treatment Plant | NTU | 0.5 ⁽⁸⁾ | N | 0.06 - 0.18 | 0.08 | Soil run-off |
| INORGANIC CHEMICALS (Source Waters) | | | | | | |
| Arsenic (11) | ppb | 50 | N | <2-2 | <2 | Erosion of natural deposits, soil run-off |
| Chlorate (12) | ppb | NS | N | 23-380 | 150 | By-product of drinking water chlorination |
| Natural Fluoride ⁽¹¹⁾ | ppm | 2 | 1 | <0.1 - 0.3 | <0.2 | Erosion of natural deposits |
| Nitrate (as NO3) (11) | ppm | 45 | 45 | <2-2 | <2 | Erosion of natural deposits, soil run-off |
| ORGANIC CHEMICALS (SFPUC Transmission System) | | | | | | |
| Total Trihalomethanes (TTHMs) (9) | ppb | NS | N | 37.7-44.3 | 41 | By-product of drinking water chlorination |
| Total Haloacetic Acids (HAAs) (9) | ppb | NS | N | 14.1-24.1 | 19 | By-product of drinking water chlorination |
| Total Haloacetonitriles (HANs) (12) | ppb | NS | N | 1-6 | 3 | By-product of drinking water chlorination |
| Total Haloketones (HKs)/Chloropicrin (CP) (12) | ppb | NS | N | <0.5 - 7 | 2 | By-product of drinking water chlorination |
| Total Aldehydes (12) | ppb | NS | N | 8 - 32 | 18 | By-product of drinking water chlorination |
| Total Organic Halides (TOX) (12) | ppb | NS | N | 110 - 222 | 146 | By-product of drinking water chlorination |

| | Unit | SMCL (3) | Range | Average |
|--|-------|----------|------------|---------|
| Secondary Standards - Source Water (11) | | | | |
| Iron | ppb | 300 | <100 - 160 | <100 |
| Chloride | ppm | 500 | <3 - 23 | 11.00 |
| Specific Conductance | μS/cm | 1600 | 8 - 340 | 189.00 |
| Sulfate | ppm | 500 | 0.6-25 | 12.00 |
| Total Dissolved Solids (TDS) | ppm | 1000 | <5-190 | 111.00 |
| Secondary Standards - Treated Water (10) | | | | |
| | | | | |
| Color | unit | 15 | <5 - 24 | <5 |
| Odor Threshold | TON | 3 | <1 - 2 | <1 |

| OTHER CONSTITUENTS - Treated Water (10) (13) | Unit | SMCL (3) | Range | Average |
|--|-------|----------|------------|---------|
| Alkalinity (as CaCO3) | ppm | NS | 13-120 | 63 |
| Boron (14) | ppb | NS | <100-180 | <100 |
| Calcium | ppm | NS | 4-31 | 16 |
| Fluoride - SFPUC Transmission System | ppm | NS | <0.1-2.2 | 1.0 |
| Hardness (as CaCO3) | ppm | NS | 10-142 | 64 |
| Magnesium | ppm | NS | <0.5 - 11 | 6 |
| pH | Units | NS | 7.4 - 9.8 | 9.0 |
| Potassium | ppm | NS | <0.5 - 1.0 | 0.5 |
| Silica | ppm | NS | 5 - 6 | 5 |
| Sodium | ppm | NS | 3-22 | 13 |

| | Key: |
|-------|--------------------------------------|
| < | - less than |
| HTWTP | - Harry Tracy Water Treatment Plant |
| ppb | - parts per billion |
| ppm | - parts per million |
| NS | - No Standard |
| N | - None |
| NTU | - Nephelometric Turbidity Unit |
| SVWTP | - Sunol Valley Water Treatment Plant |
| μS/cm | - microSiemens/centimeter |
| TON | - Threshold Odor Number |

WHAT DOES THIS TABLE MEAN

This table shows the results of SFPUC water quality analyses for 2002. It contains the name of each substance, the hightest level allowed by regulation (MCL), the ideal goals for public health (PHG), the amount detected, the typical sources, footnotes explaining SFPUC findings and a key to units of measurement.

- (1) Set forth in 40 CFR Parts 141 and 142 National Primary Drinking Water Regulation and California Code of Regulations, Title 22 Section 116470.
- (2) All results met State and Federal drinking water regulations.
- (3) Maximum Contaminant Level (MCL) and Secondary Maximum Contaminant Level (SMCL) set by U.S. EPA/DHS.
- (4) Public Health Goal (PHG) adopted by the State Office of Environmental Health Hazard Assessment (OEHHA) of the California EPA.
- (5) Maximum Contaminant Level Goal (MCLG) set by U.S. EPA.
- (6) Turbidity is the water clarity indicator; it also indicates the quality of the water and the treatment system efficiency.
- (7) The turbidity standard for unfiltered supplies is 5 NTU.
- (8) Filtered water turbidity must be less than 0.3 NTU 95% of the time. Both SFPUC plants met this standard 100% of the time.
- (9) Data obtained from 4-quarter running annual average of 12 locations in San Francisco Regional Water System.
- (10) Data obtained from Alameda East Portal, Sunol Valley, and Harry Tracy Water Treatment Plants.
- (11) Data obtained from Hetch Hetchy, Calaveras, San Antonio, Lower Crystal Springs, San Andreas Reservoirs, Pilarcitos, and Stone Dam.
- (12) Based on Information Collection Rule data collected in 1998 at Alameda East Portal, SVWTP, and HTWTP.
- (13) Note that Chromium, perchlorate, and MTBE were not detected in the source or treated water.
- (14) Data obtained from quarterly State UCMR monitoring.

Note: Additional water quality data may be obtained by calling the SFPUC water system phone number (877) 737-8297.

How Can the Public Be Involved?



All photographs courtesy of Kelly Alcala © 2003.

Meetings of the City of San Bruno City Council begin at 7:00 PM on the second and fourth Tuesdays of each month and are open to the public. Meetings are held at the San Bruno Senior Center located at 1555 Crystal Springs Rd.

If you have any questions or need further information, please feel free to contact the City of San Bruno Water Division at (650) 616-7162, or by mail at City of San Bruno Water Division, 567 El Camino Real, San Bruno, CA 94066-4247. A copy of the 2002 Consumer Confidence Report will also be posted on the City's website at www.ci.sanbruno.ca.us.

Decisions about SFPUC water quality issues are made from time to time in public meetings held at San Francisco City Hall, 1 Doctor Carlton B. Goodlett Place, Room 400, San Francisco CA 94102. Inquiries about these meetings may be directed to the Office of the Commission Secretary at (415) 554-3165. Additional information about the SFPUC water quality may be obtained by calling (877) 737-8297. or by going to their web site at www.ci.sf.ca.us/puc/

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

此份有关你的食水报告,内有重要资料和讯息,请找 他人为你翻译及解释清楚。

City of San Bruno **Public Works Department Water Division** 567 El Camino Real San Bruno, CA 94066-4247

PRST STD U.S. Postage PAID San Bruno, CA 94066 Permit #84

Postal Customer

